

Business Evaluation for the  
Service Components of

**GENERAL ELECTRIC  
COMPUTER SERVICE**

Division of General Electric Company





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Prepared by

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Y-B03  
1989

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# Table of Contents

<b>I</b>	Introduction	1
<b>II</b>	Summary of Key Information from the Norcross Meeting on April 4, 1989	3
	A. Computer Service Revenue	3
	1. Revenue Mix 1988	3
	2. Average Revenue per Service Call	3
	3. Total GECS Revenue	4
	4. Computer Service Revenue Erosion	4
	B. Demographics	4
	C. Marketing	5
	D. Pricing	5
	E. Quality of Service	5
	F. Spare Parts Inventory	5
	G. Productivity and Cost Reduction Plans	6
<b>III</b>	Summary of Key Information from Visits to the Northeast and the Southwest Regional Sales and Service Offices	7
<b>IV</b>	Preliminary Conclusions	29
	A. TPM Market	29
	B. Pricing Methodology	29
	C. Revenue Erosion	29
	D. Management	30
	E. Productivity Objectives	30
	F. Opportunity for Savings	31
	G. Parts Inventory Book Value	31
	H. Marketing and Sales	31

## Table of Contents (Continued)

<b>A</b>	Appendix: Copy of the Questionnaire Used as a Guideline for Discussion in the Regional Interviews	33
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# Exhibits

## III

-1ab	Organization	7
-2	Measurements of Customer Satisfaction	12
-3	Measurements of Employee Satisfaction	12
-4	Measurements of Job Performance	13
-5	Security Control of Parts Inventory/Parts Return	14
-6	Parts Logistics System	15
-7	Recent Losses to Competition	16
-8	Principal Competitors Identified	17
-9	Setting Prices in Special Bid Situations	18
-10	Plan for Remainder of 1989 and for 1990	20
-11	Key Inhibitors to Revenue Growth	21
-12	Competitive Price Comparison	22
-13	Centralized Customer Support Operation	23
-14	Potential for Growth	23
-15	Manpower vs. Workload Status	24
-16	Attrition Record	25
-17	Call Backlog per Field Service Rep	25
-18	Average Calls per Day per Field Service Rep	26
-19	Problems with Van Program	26
-20	Identifying and Marketing to Prospective Customers	27







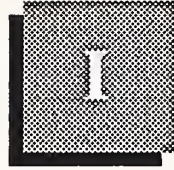
# Introduction





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# Introduction

Welch, Carson, Anderson and Stowe and J. H. Whitney and Co. required financial support from the Bank of Boston for a proposed acquisition of the General Electric Computer Service Division of the General Electric Company.

The Bank of Boston contracted with INPUT to perform an independent business evaluation of the computer service component of this division. Computer Service is the largest of three business areas that are managed by the division in the United States. The other businesses are Electronic Equipment Repair and Rental. The 1988 revenues for each area were as follows:

- Computer Maintenance                      \$113.3 million
- Rental    \$58.2 million
- Electronic Equipment Repair              \$35.3 million

The evaluation effort was conducted by Mr. H. W. Stigler, Manager of INPUT's Customer Service Program. Fifteen areas were targeted for evaluation. The evaluation started with a one-day briefing at the division headquarters in Norcross, Georgia on April 4, 1989. A summary of the key information from this briefing is presented in Chapter II.

This was followed by field visits and interviews with both sales and service management at the Northeast and Southwest regional offices. The field interviews were structured by use of a 20-question format to stimulate discussion and to provide a good understanding of the field operations. A copy of the questionnaire is provided in the appendix, and a summary of the results obtained is presented in Chapter III.

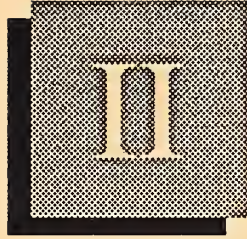


The preliminary conclusions are presented in Chapter IV. All remaining evaluation effort has been put on hold because the negotiations over the purchase price have been unsuccessful and no resolution appears likely in the near future.

The purpose of this report is to document the findings to this point so that they may be used if the effort is resumed.

A follow-up visit to the Norcross headquarters was planned to interview certain managers and executives in depth and to complete the analysis of the remaining items. A customer satisfaction survey was also planned but not started.

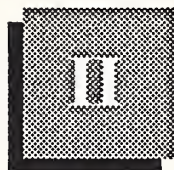
INPUT is retaining all documentation obtained relative to this study in its confidential files for use should the study be resumed at a later date.



## Summary of Key Information from the Norcross Meeting on April 4, 1989







## Summary of Key Information from the Norcross Meeting on April 4, 1989

The Norcross meeting consisted of a one-day briefing by the executives of General Electric Computer Service and a tour of the facilities in Norcross. The briefing covered the three major business areas and the plans and programs for the field as well as the support organization.

The information presented contained very little historical trend data and as a result it was difficult to obtain a good understanding of the trends. Management explained that this was due to the merger of GECS and RCA Service during the past two years, and the information systems were just now available to support the merger operation.

Based on the presentations, the following is a summary of key information from the computer service business.

### A

#### Computer Service Revenue

##### 1. Revenue Mix: 1988

Data Communications	\$75 million	65%
Minicomputer	29 million	25%
Hourly Demand Service	11 million	10%
Total	\$115 million	

##### 2. Average Revenue per Service Call

1988	\$230
------	-------

**3. Total GECS Revenue**

1986	\$233 million
GE	\$140 million
RCA	69 million
CALMA	<u>24 million</u>
	\$233 million
1988	\$225 million

The rental business has been growing while the computer service has been declining.

**4. Computer Service Revenue Erosion**

In 1988, 25% (\$24 million) of the revenue base was lost due to:

- Obsolescence      \$7.9 million (with \$14 million more projected in the next 2 years)
- Quality
- Price
- Self Maintenance

Very aggressive competition from OEMs and TPMs

First-quarter 1989 \$1 million under plan due to continued erosion (i.e. loss of existing accounts)

**B****Demographics**

15,000 customers

600,000 units being serviced

Nationwide service capability

Largest customers:

- American Airlines: \$26 million/yr.
- General Electric: \$18 million/yr.

Second party relationships with OEMs = 30% of revenue

**C****Marketing**

Marketing strategy was changed in the 4th-quarter 1987 to focus on large national accounts requiring multivendor support.

Small account marketing has been handled via telemarketing from Norcross since early 1989.

**D****Pricing**

Price book prices are generally 10% to 15% below OEM prices.

Special bid prices are much lower based on cluster of equipment, parts inventory required, manpower required, and competitive prices.

No product service cost history data is being used in setting prices although data is probably available in the DART System.

Special bid prices are set based on an estimate of incremental costs.

**E****Quality of Service**

The overall quality of service has improved during the past year.

- Mean time to arrival 5 hours
- Percent on-time arrival 83%
- Percent on-time completions 72%

**F****Spare Parts Inventory**

Amortized over five years effective July 1987

Book value:

- 7/87 \$46.5 million
- 3/89 64.6 million
- 79.8 million gross
- less 15.2 million amortization

Shared-kit strategy being implemented to reduce inventory

Field inventory management being decentralized and placed under region control

New account sparing being controlled to 20% of revenue through bidding process



**G****Productivity and Cost  
Reduction Plans**

Van program being reduced from 950 to 700 vans by end of 2nd-quarter 1989

Call volume to be reduced by 14% as a result of implementation of the technical assistance center and managing the reschedule rate from 20% to 15%

Call handling rate to be improved from 2.1 calls per day per technician to 3.2 calls per day

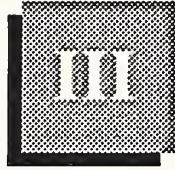


# Summary of Key Information from Visits to the Northeast and the Southwest Regional Sales and Service Offices









## Summary of Key Information from Visits to the Northeast and the Southwest Regional Sales and Service Offices

EXHIBIT III-1a

<b>ORGANIZATION</b> <b>U.S. organization divided into seven regions, including one American Airlines region and six geographic regions</b>	
<b>Northeast</b> <b>Ric Ellwanger, Region Manager</b>	<b>Southwest,</b> <b>Bob Stevens, Region Manager</b>
<b>Service</b> <ul style="list-style-type: none"> <li>• 120 technicians</li> <li>• Six district managers (down from 9), they have no staff</li> <li>• Five geographic districts plus PBX (government business, Boston)</li> <li>• District manager is first line manager.</li> <li>• 23 technicians/manager</li> </ul>	<b>Service</b> <ul style="list-style-type: none"> <li>• 83 technicians out of 100 people total (cutting back to 98 next week)</li> <li>• 4 district managers               <ul style="list-style-type: none"> <li>- Wyoming, Colorado, New Mexico, Texas, Oklahoma, Arkansas, Louisiana</li> </ul> </li> </ul>

## EXHIBIT III-1a (Cont.)

**ORGANIZATION**

**U.S. organization divided into seven regions, including one American Airlines region and six geographic regions**

<b>Northeast</b> <b>Ric Ellwanger, Region Manager</b>	<b>Southwest</b> <b>Bob Stevens, Region Manager</b>
<p><b>Service</b></p> <ul style="list-style-type: none"> <li>• Region operations manager               <ul style="list-style-type: none"> <li>- Contract administration                   <ul style="list-style-type: none"> <li>Hr. service</li> <li>Billing administration</li> </ul> </li> <li>- Service planning                   <ul style="list-style-type: none"> <li>Training plan</li> <li>Logistics</li> <li>Bids</li> </ul> </li> <li>- Customer service manager,                   <ul style="list-style-type: none"> <li>Interface to sales</li> </ul> </li> <li>- Service coordinators</li> </ul> </li> <li>• Region inventory manager (new position)               <ul style="list-style-type: none"> <li>- Inventory coordinator</li> <li>- Parts expeditor</li> <li>- Region will now set stocking levels</li> </ul> </li> <li>• Parts stocking philosophy               <ul style="list-style-type: none"> <li>- 80% VANs</li> <li>- 10% shared kits</li> <li>- 10% Norcross</li> </ul> </li> <li>• Key customers               <ul style="list-style-type: none"> <li>- General Electric</li> <li>- Combustion Engineering</li> </ul> </li> </ul>	<p><b>Service</b></p> <ul style="list-style-type: none"> <li>• Region operations manager               <ul style="list-style-type: none"> <li>- Contract administration                   <ul style="list-style-type: none"> <li>Hr. service</li> <li>Billing administration</li> </ul> </li> <li>- Service planning                   <ul style="list-style-type: none"> <li>Training plan</li> <li>Logistics</li> <li>Bids</li> </ul> </li> <li>- Customer service manager,                   <ul style="list-style-type: none"> <li>Interface to sales</li> </ul> </li> <li>- Service coordinators</li> </ul> </li> <li>• Region inventory manager (new position)               <ul style="list-style-type: none"> <li>- Inventory coordinator</li> <li>- Parts expeditor</li> <li>- Region will now set stocking levels</li> </ul> </li> <li>• Parts stocking philosophy               <ul style="list-style-type: none"> <li>- 80% VANs</li> <li>- 10% shared kits</li> <li>- 10% Norcross</li> </ul> </li> <li>• Key customers               <ul style="list-style-type: none"> <li>- American Airlines (although a separate organization handles AA in major cities)</li> <li>- Commodity News Service</li> <li>- NCAB (\$300K/year)</li> </ul> </li> </ul>

## EXHIBIT III-1a (Cont.)

**ORGANIZATION**

**U.S. organization divided into seven regions, including one American Airlines region and six geographic regions**

<b>Northeast</b> <b>Ric Ellwanger, Region Manager</b>	<b>Southwest</b> <b>Bob Stevens, Region Manager</b>
<b>Service</b> <ul style="list-style-type: none"> <li>• Technical support <ul style="list-style-type: none"> <li>- Service planner is technical.</li> <li>- Group leader is a high-level technician.</li> <li>- District managers are ex-technicians.</li> <li>- Norcross provides engineering and technical support.</li> </ul> </li> <li>• Off-hour calls <ul style="list-style-type: none"> <li>- Assign a technician on-call for nights/weekends and pay a standby premium</li> <li>- Account CE is next in line if technician is not available.</li> <li>- Typical 8:00 am to 5:00 pm operation, only two people working shift</li> </ul> </li> </ul>	<b>Service</b> <ul style="list-style-type: none"> <li>• Technical support <ul style="list-style-type: none"> <li>- Lead technicians</li> <li>- Help from Norcross</li> </ul> </li> <li>• Off-hour calls <ul style="list-style-type: none"> <li>- Assign a technician on-call for nights/weekends and pay a standby premium</li> <li>- Account CE is next in line if technician is not available</li> <li>- Typical 8:00 am to 5:00 pm operation, only two people working shift</li> </ul> </li> </ul>



## EXHIBIT III-1b

**ORGANIZATION**

**Seven sales regions cover the top 300 accounts nationwide,  
effective May 1, 1989**

Northeast	Southwest
<p><b>Sales</b></p> <ul style="list-style-type: none"> <li>• Eleven sales people assigned, plus two open slots</li> <li>• Two types of sales people               <ul style="list-style-type: none"> <li>- Major account manager</li> <li>- Field account manager (administration oriented)</li> </ul> </li> <li>• History               <ul style="list-style-type: none"> <li>- RCA - small sales group (13 national), large national accounts</li> <li>- GE - 100 sales people, small accounts</li> <li>- After merger, GECS has moved toward RCA philosophy: 45 sales people, large national accounts, small data communications accounts, handled out of Atlanta</li> </ul> </li> <li>• Covers New York City, Boston, New York State, Connecticut, Philadelphia, and New Jersey</li> </ul>	<p><b>Sales</b></p> <ul style="list-style-type: none"> <li>• Eight sales people assigned               <ul style="list-style-type: none"> <li>- Six outside sales</li> <li>- Two inside sales, i.e., field administration</li> </ul> </li> <li>• "In 1988 we had a good year, we wrote \$3.5 million on an order booking basis" (i.e., 133% quota).               <ul style="list-style-type: none"> <li>- Four people made the Presidents Club.</li> <li>- He is very confident about the future; just bought a \$30,000 BMW.</li> </ul> </li> </ul>



## EXHIBIT III-1b (Cont.)

**ORGANIZATION**

**Seven sales regions cover the top 300 accounts nationwide,  
effective May 1, 1989**

Northeast	Southwest
<p><b>Sales</b></p> <ul style="list-style-type: none"> <li>• Key customers               <ul style="list-style-type: none"> <li>- 45% to 50% of total business in the region is General Electric internal</li> </ul> </li> <li>• 1989 Sales Plan being changed from payment on total bookings to a payment on net revenue billed plus a quote bonus for making 100% plus a base salary</li> </ul>	<p><b>Sales</b></p> <ul style="list-style-type: none"> <li>• Key customers               <ul style="list-style-type: none"> <li>- American Airlines</li> <li>- Northern Telecom</li> <li>- American Computer</li> </ul> </li> <li>• Targeted to have 50 major accounts above \$50K/year</li> <li>• 1989 Sales Plan being changed from payment on total bookings to a payment on net revenue billed plus a quote bonus for making 100% plus a base salary</li> </ul>

EXHIBIT III-2

**MEASUREMENTS OF CUSTOMER SATISFACTION**

Northeast	Southwest
<ul style="list-style-type: none"><li>• New customer satisfaction survey</li><li>• Best feedback if from field service reps</li><li>• On-site visits</li></ul>	<ul style="list-style-type: none"><li>• New customer satisfaction survey</li><li>• Customer complaints</li></ul>

EXHIBIT III-3

**MEASUREMENTS OF EMPLOYEE SATISFACTION**

Northeast	Southwest
<ul style="list-style-type: none"><li>• Performance appraisals</li></ul>	<ul style="list-style-type: none"><li>• Round tables</li><li>• Visit to field locations</li><li>• 60% are RCA people, and they are excited because they were stepchildren.</li></ul>

## EXHIBIT III-4

**MEASUREMENTS OF JOB PERFORMANCE**

Northeast	Southwest
<p><b>Service</b></p> <ul style="list-style-type: none"> <li>• Region manager is on an incentive plan. <ul style="list-style-type: none"> <li>- 80% on-time arrival</li> <li>- 74% complete within time frame</li> <li>- Reschedule call rate percentage</li> <li>- Inventory balance</li> </ul> </li> <li>• P&amp;L - but its really more a budget control</li> <li>• Customer satisfaction</li> <li>• District Manager not sure, no performance appraisal in a while, thinks they are still honing an incentive plan</li> </ul>	<p><b>Service</b></p> <ul style="list-style-type: none"> <li>• Mean time to arrival (response)</li> <li>• Mean time to complete calls</li> <li>• Inventory carrying costs</li> <li>• Complete calls/tech/day = 1.9 to 2.0</li> <li>• Customer complaints</li> <li>• Call backs</li> <li>• Number of rescheduled calls</li> <li>• Calls over 48 hours</li> </ul>
<p><b>Sales</b></p> <ul style="list-style-type: none"> <li>• Net revenue billed</li> <li>• Percent quota on new bookings</li> <li>• No targets set as yet</li> <li>• Net revenue measurement</li> <li>• System still has bugs in it (i.e., transition problem)</li> </ul>	<p><b>Sales</b></p> <ul style="list-style-type: none"> <li>• This year on net revenue billed plus number of new bookings</li> <li>• Last year on bookings</li> </ul>

## EXHIBIT III-5

**SECURITY CONTROL OF PARTS INVENTORY/PARTS RETURN**

Northeast	Southwest
<ul style="list-style-type: none"><li>• Inventory variance numbers are not available but it has not been a problem in the past.</li><li>• The FSRs have a specified number of days to return parts. If they don't, the DART system follows them and their manager until the parts are returned.</li><li>• We have about \$10 million in inventory now and we are trying to get it down to \$7 million. We are not sure how much obsolete inventory is in the \$10 million but it appears it may be significant.</li><li>• The new system will send everything from VANs not used back to a central point if not used with in six months.</li><li>• Authorization to scrap will come from Norcross.</li><li>• New York City has been a particular problem in terms of loss and theft of parts.</li></ul>	<ul style="list-style-type: none"><li>• Inventory variance numbers are not available, but it has not been a problem in the past.</li><li>• The parts return system is working well. A report is run every Monday.</li><li>• Norcross has recently increased the budget on scrap for 1989 from \$10 million to \$20 million.</li></ul>

## EXHIBIT III-6

**PARTS LOGISTICS SYSTEM**

Northeast	Southwest
<ul style="list-style-type: none"><li>• The system was not good in the past, but everyone is excited about the new shared inventory system. More region control is good.</li><li>• A significant amount of scrap is still in inventory.</li></ul>	<ul style="list-style-type: none"><li>• We have had problems in the past but it's working better now.</li><li>• Parts inventory represents 10% to 20% of the value of a contract.</li></ul>



## EXHIBIT III-7

## RECENT LOSSES TO COMPETITION

Northeast	Southwest
<p><b>Service</b></p> <ul style="list-style-type: none"> <li>• We have not had major recent losses, but we are losing a lot of small accounts to small competitors that we cannot compete with on price.</li> <li>• We have also had a lot of competition from DEC on price. <ul style="list-style-type: none"> <li>- Price competition is brutal.</li> <li>- Competitors are using the proposed acquisition as a weapon.</li> </ul> </li> </ul>	<p><b>Service</b></p> <ul style="list-style-type: none"> <li>• Texas Utilities: \$847K/year was lost to Printronics on price.</li> <li>• Existing customers are shifting to newer products: <ul style="list-style-type: none"> <li>- Data General to IBM 36 and AS/400</li> <li>- GE Calma to Apollo (i.e., TI)</li> </ul> </li> </ul>
<p><b>Sales</b></p> <ul style="list-style-type: none"> <li>• McKinsey &amp; Co., New York City: \$58K/year was lost to a local dealer on price.</li> <li>• U.S. Army - Arsenal: \$180K/year was lost to DEC on price.</li> </ul>	<p><b>Sales</b></p> <ul style="list-style-type: none"> <li>• Texas Utilities: \$847K/year was our largest loss earlier this year. IBM forced an RFP; we quoted a 41% discount and lost on price to Printronics who quoted \$550K.</li> </ul>

## EXHIBIT III-8

**PRINCIPAL COMPETITORS IDENTIFIED**

Northeast	Southwest
<b>Service</b> <ul style="list-style-type: none"> <li>• DEC and IBM in Mini market. Weakness: multivendor</li> <li>• Sorbus, TRW, and ASJ as TPMs. Strength: competitive prices</li> <li>• Small local companies. Strength: lower prices</li> <li>• Price competition is brutal, particularly from the small local companies.</li> </ul>	<b>Service</b> <ul style="list-style-type: none"> <li>• IBM: Weakness: Can't service other products</li> <li>• ASJ: Strength: CAD/CAM</li> <li>• Printronics: Weakness: quality; Strength: low price</li> </ul>
<b>Sales</b> <ul style="list-style-type: none"> <li>• IBM and DEC</li> <li>• TRW, Sorbus, Intellogic Trace, and CDC</li> <li>• A lot of local companies</li> </ul>	<b>Sales</b> <ul style="list-style-type: none"> <li>• Data General and IBM: Weakness: multivendor support</li> </ul>

## EXHIBIT III-11

## KEY INHIBITORS TO REVENUE GROWTH

Northeast	Southwest
<b>Service</b> <ul style="list-style-type: none"> <li>• The sale of the business</li> <li>• The loss of renewals</li> <li>• Lack of sales effort toward small accounts</li> <li>• Competition (i.e., price): Sanity has gone out of pricing.</li> <li>• Buyers market</li> </ul>	<b>Service</b> <ul style="list-style-type: none"> <li>• Lack of focus on small customers</li> <li>• Competition on large accounts drives down price.</li> <li>• Marketing - Only three full-time sales staff in Dallas/Ft. Worth, none in Austin/San Antonio</li> </ul>
<b>Sales</b> <ul style="list-style-type: none"> <li>• Reliability and prices for equipment service</li> <li>• Competition - OEM and TPM</li> <li>• Perception of TPM</li> <li>• Difficulty in showing added value</li> </ul>	<b>Sales</b> <ul style="list-style-type: none"> <li>• Lack of authority of sales to set prices.</li> <li>• Materials organization is a roadblock on most bids.</li> <li>• Lack of ability to handle LANs.</li> <li>• Resident technician prices are too high (\$130K/year).</li> </ul>

## EXHIBIT III-9

**SETTING PRICES IN SPECIAL BID SITUATIONS****Northeast****Service**

- Regions have authority to set and sign off on contracts up to \$100K/year. Others must go to Atlanta.
- Price book is used as a guideline or starting point.
- Determine what resources are in place and what resources are needed, i.e., parts, training, people
- Incremental pricing approach
- Profit projection in a pricing model
- Most contracts are national in scope due to marketing strategy.
- What price is necessary to win the business.
- We try for three years, but most contracts are for one year.

**Southwest****Service**

- If under \$100K, we can handle in the region.
- We have authority to go 10% below GE price list.
- The expectation price from competition is key.
- Parts inventory required can be significant, in some cases up to 35%.



## EXHIBIT III-9 (Cont.)

**SETTING PRICES IN SPECIAL BID SITUATIONS**

Northeast	Southwest
<p><b>Sales</b></p> <ul style="list-style-type: none"> <li>• Ask the customer what he wants and provide a list of equipment by location.</li> <li>• Screen for hostile vendors that won't provide documentation and parts (i.e., Wang).</li> <li>• Send large (over \$100K) to Norcross. If very large, the strategic account manager in Norcross is assigned. They prepare incremental cost estimates.</li> <li>• Large national insurance companies and Combustion Engineering are insisting on a retainer plan plus \$/call-type contracts.</li> </ul>	<p><b>Sales</b></p> <ul style="list-style-type: none"> <li>• Ask the customer what he wants and provide a list of equipment by location.</li> <li>• Send large (over \$100K) to Norcross. If very large, the strategic account manager in Norcross is assigned. They prepare incremental cost estimates.</li> </ul>



## EXHIBIT III-10

## PLAN FOR REMAINDER OF 1989 AND FOR 1990

Northeast	Southwest
<p><b>Service</b></p> <ul style="list-style-type: none"> <li>• We are projecting a 10% to 15% growth rate per year. This includes a 4% price increase announced in April.</li> <li>• It really depends on sales effort. There is potential for significant growth, but we lack any sales focus on the smaller accounts.</li> <li>• We seem to be servicing more units at a lower revenue and profit per box.</li> <li>• History has been for very small growth.</li> </ul>	<p><b>Service</b></p> <ul style="list-style-type: none"> <li>• Overall, we will be lucky to keep revenue flat.</li> <li>• We have some good prospects: <ul style="list-style-type: none"> <li>- American Airlines - 5000 PCs</li> <li>- Chevron - 3500 to 5000 units</li> <li>- Austin Computer</li> </ul> We are losing a lot of small customers that are being handled by Norcross client services.</li> </ul>
<p><b>Sales</b></p> <ul style="list-style-type: none"> <li>• We will get final quotas for the year sometime in May.</li> <li>• We are not sure about growth due to new national account strategy and new people.</li> </ul>	<p><b>Sales</b></p> <ul style="list-style-type: none"> <li>• A \$1 million/year increase in revenue is possible, or about 16%.</li> <li>• A lot of prospects, such as: <ul style="list-style-type: none"> <li>- American Airlines</li> <li>- Northern Telecom</li> <li>- Four local clone manufacturers</li> </ul> </li> <li>• His overall impression of GECS's business status is: Revenue down; orders up. He has no records yet however, on what is going away.</li> </ul>

## EXHIBIT III-12

**COMPETITIVE PRICE COMPARISON**

Northeast	Southwest
<p><b>Service</b></p> <ul style="list-style-type: none"> <li>• Consistently in the ballpark when competing against the larger companies</li> <li>• On the high side when competing with the smaller TPMs with lower overhead</li> </ul>	<p><b>Service</b></p> <ul style="list-style-type: none"> <li>• Generally competitive, but everybody is getting desperate, including IBM and Sorbus.</li> </ul>
<p><b>Sales</b></p> <ul style="list-style-type: none"> <li>• Competitive against DEC and IBM (i.e., 10% below on a mixed vendor bid or 15% to 20% on a non-mixed)</li> <li>• Equal or higher against other national TPMs. We stress quality, central dispatch, and account control.</li> <li>• Against local TPMs, we die (i.e., we are not competitive).</li> </ul>	<p><b>Sales</b></p> <ul style="list-style-type: none"> <li>• Usually high if new parts inventory is required</li> <li>• If a full-time resident technician is required, \$130,000 per year is too high!</li> </ul>

EXHIBIT III-13

**CENTRALIZED CUSTOMER SUPPORT OPERATION**

Northeast	Southwest
<ul style="list-style-type: none"> <li>• It's working pretty good! Particularly the centralized dispatch.</li> <li>• The move to decentralize to some extent the materials area is a good one also.</li> <li>• The Technical Assistance Center effort is still providing mixed results, but it's new.</li> </ul>	<ul style="list-style-type: none"> <li>• Good, it's the only way!</li> <li>• The 24-hour dispatch is an excellent sales advantage.</li> </ul>

EXHIBIT III-14

**POTENTIAL FOR GROWTH**

Northeast	Southwest
<ul style="list-style-type: none"> <li>• Really all industries. Our strengths are companies who have a national need for service.</li> <li>• Our technical capability is data communications, microcomputers, and minicomputers.</li> <li>• Network management has a lot of growth potential but we have limited technical capability. The Local-area network and wide-area network markets are ripe.</li> </ul>	<ul style="list-style-type: none"> <li>• Haven't found any product or industry.</li> <li>• Some potential for taking over from companies that have been doing self-service (i.e., American Airlines, Chevron, and Exxon).</li> <li>• OEM contracts with start-up computer companies and clone manufacturers.</li> </ul>



## EXHIBIT III-15

**MANPOWER VS. WORKLOAD STATUS**

Northeast	Southwest
<p data-bbox="95 569 216 603"><b>Service</b></p> <ul data-bbox="95 653 728 1079" style="list-style-type: none"> <li>• We are in good shape on manpower! The number of managers has been reduced from nine to six.</li> <li>• The number of technicians is determined by considering the number of calls/technician, response time, fix time, overtime per man, and idle time. Also, of course, more \$ = more people.</li> </ul>	<p data-bbox="796 569 916 603"><b>Service</b></p> <ul data-bbox="796 653 1428 728" style="list-style-type: none"> <li>• We are two men over and will remedy that on Friday.</li> </ul>
<p data-bbox="95 1134 183 1168"><b>Sales</b></p> <ul data-bbox="95 1217 690 1292" style="list-style-type: none"> <li>• We have two openings, one in New Jersey and one in Philadelphia.</li> </ul>	<p data-bbox="796 1134 883 1168"><b>Sales</b></p> <ul data-bbox="796 1217 1466 1372" style="list-style-type: none"> <li>• We don't have enough. There are some cities where we need local sales coverage (i.e., Austin and San Antonio). I am moving one man to Denver.</li> </ul>

EXHIBIT III-16

ATTRITION RECORD	
Northeast	Southwest
<b>Service</b> <ul style="list-style-type: none"> <li>• Last year we lost five or six people in Manhattan due to morale and salary. The manager left and took the people.</li> <li>• We are losing people to big banks based on salary and needed skills such as LAN networking</li> </ul>	<b>Service</b> <ul style="list-style-type: none"> <li>• Lost two people in the past year, which was about 10% of the total attrition (i.e., we released about 18).</li> </ul>
<b>Sales</b> <ul style="list-style-type: none"> <li>• Normal, but we have released some due to poor performance.</li> <li>• Our long-term GE people are concerned about the acquisition.</li> </ul>	<b>Sales</b> <ul style="list-style-type: none"> <li>• Have only lost one that I didn't intend to lose, but have released and replaced three people in Houston.</li> </ul>

EXHIBIT III-17

CALL BACKLOG PER FIELD SERVICE REP	
Northeast	Southwest
<ul style="list-style-type: none"> <li>• Recently we are averaging about 225 open calls, or about 1.9 per technician. This is exactly the number of calls we are averaging per day, so the backlog is one day's calls.</li> </ul>	<ul style="list-style-type: none"> <li>• We have been running 2.0 to 2.5 calls per day per technician. This is slightly over a one-day backlog.</li> </ul>



## EXHIBIT III-18

**AVERAGE CALLS PER DAY PER FIELD SERVICE REP**

Northeast	Southwest
<ul style="list-style-type: none"> <li>• The report shows 1.9 calls per day, but he questions the validity and thinks the real number is 2.2.</li> </ul>	<ul style="list-style-type: none"> <li>• The average has been 1.9 to 2.0 calls per day.</li> </ul>

## EXHIBIT III-19

**PROBLEMS WITH VAN PROGRAM**

Northeast	Southwest
<ul style="list-style-type: none"> <li>• We can't use vans in New York City because of parking, parking tickets, and accidents.</li> </ul>	<ul style="list-style-type: none"> <li>• The new program to cut back on the number of vans is being accepted. The managers cars have been done, the technicians are being done now.</li> <li>• We have a very old inventory of vans, many of which need replacing!</li> </ul>

## EXHIBIT III-20

**IDENTIFYING AND MARKETING TO PROSPECTIVE CUSTOMERS**

Northeast	Southwest
<ul style="list-style-type: none"><li>• Our district service managers have a high interest in getting new business. They feed leads from the field service reps to the sales people.</li><li>• We need more local focus. Sales only looks at accounts with over \$25K/year potential.</li><li>• Look for large national companies with a need for nationwide coverage (i.e., brokerage, insurance, etc.).</li></ul>	<ul style="list-style-type: none"><li>• Expand product coverage for existing customers</li><li>• RFPs are becoming very common.</li><li>• Large national accounts. These take time to establish and gain credibility.</li></ul>

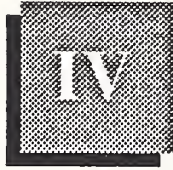




## Preliminary Conclusions







## Preliminary Conclusions

As a result of the briefing in Norcross and the visits to the Northeast and Southwest sales and service regions, the following conclusions were reached:

### A

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#### TPM Market

The TPM market in which GECS competes for data communications equipment and micro/minicomputers has reached the point where almost every contract is priced through the special bid process due to the extreme price competition from OEMs, national TPMs, and local TPMs.

### B

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#### Pricing Methodology

The special bid process appears to utilize an incremental cost estimate pricing approach rather than an average cost approach. The average cost data/machine type is probably available in the DART system for high-volume products but it is not being used.

The incremental approach usually doesn't allow adequate recovery of non-direct costs and it is easy to bid the same available resource more than once, resulting in an understatement of the incremental costs.

The bid process also appears to be heavily influenced on what price it will take to win the business. This, in conjunction with the incremental pricing concept, will put further pressure on margins that are already unacceptable.

### C

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#### Revenue Erosion

The erosion of the current customer base of 25% or more in 1988 is significant and continuing. It appears to be caused by:

- The loss of many small customers due to heavy competition from local TPMs and customers replacing obsolete equipment. This problem has not had adequate sales focus due to the shift in the marketing strategy to

focus on large national accounts. This change of focus occurred in the fourth quarter of 1987.

- The loss of several large customers due to action by competitors and customers that force an RFP (request for price) at most contract renewals. This gives everyone an opportunity to bid and the customer an opportunity to focus on the quality and the cost of service.

## D

### Management

The field service organization appears to be well managed and has adequate focus on productivity, quality of service, and meeting contractual commitments for response time and call completion times. A lot of emphasis is being placed on inventory management at the region level in order to improve parts availability and lower total inventory levels.

Parts availability has clearly been a problem in the past and has resulted in a high percentage of rescheduled calls, as well as customer dissatisfaction. The field has high hopes that the decentralization move will help resolve this problem.

The shared parts kit philosophy is being implemented which will probably lower inventory costs. It is not clear however what impact this will have on CE productivity as it will require a trip to the shared kit to get parts where no trip is required today.

The key financial controls appear to be of the variance-to-plan or variance-to-budget types. If they don't meet the revenue plan, they are expected to cut back on manpower.

The man/manager ratio of about 25 to one is very high for a service organization that has a lot of remote technicians. This could lead to people management problems in the future.

## E

### Productivity Objectives

The GECS stated objective of improving the call handling rate from 2.1 to 3.1 per day (a 52% improvement) is probably not achievable. The combination of the scattered locations of the datacom customers, the impact of the shared kit strategy, and the high man/manager ratio will limit the improvement that can be achieved.

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**F****Opportunity for Savings**

Some efficiencies are possible by merging the American Airlines service group into the existing service regions. Today this is a separate team that provides American Airlines with service in the major cities where the equipment is clustered. This *may not be acceptable* to American Airlines and also, if done, American Airlines may want a price reduction.

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**G****Parts Inventory Book Value**

The net book value of the parts inventory may not adequately reflect the amount of obsolete inventory on the shelf. It is not clear exactly how much obsolete inventory is on the shelves, but the current effort by the regions to lower inventory by sending back to stock unused parts based on current usage will probably result in a need to scrap or write off a significant amount. The Dallas inventory manager reported that he was told that the scrap budget was being raised from \$10 million to \$20 million in 1989.

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**H****Marketing and Sales**

The field sales organization changed its focus to large national accounts with nationwide field service multivendor needs in late 1988. While it has had some success in this effort, the erosion of the current customer base offsets these gains. In early 1989, the role of sales was changed to involve them in protecting the current customer base for large accounts as well as selling new business.

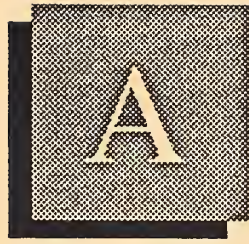
A large part of their commission plan is based on net revenue billed but some additional incentive remains for new bookings. Some difficulty was encountered in moving to the new plan and as a result, no sales quotas were set until May for 1989.

This change to a protection role should help slow down the erosion of the current customer base. However, to best implement this strategy, a lot of teamwork will be required between the service organization and the sales organization. Today, each organization reports separately to a different executive in headquarters. Consideration should be given to changing this structure to force more teamwork.

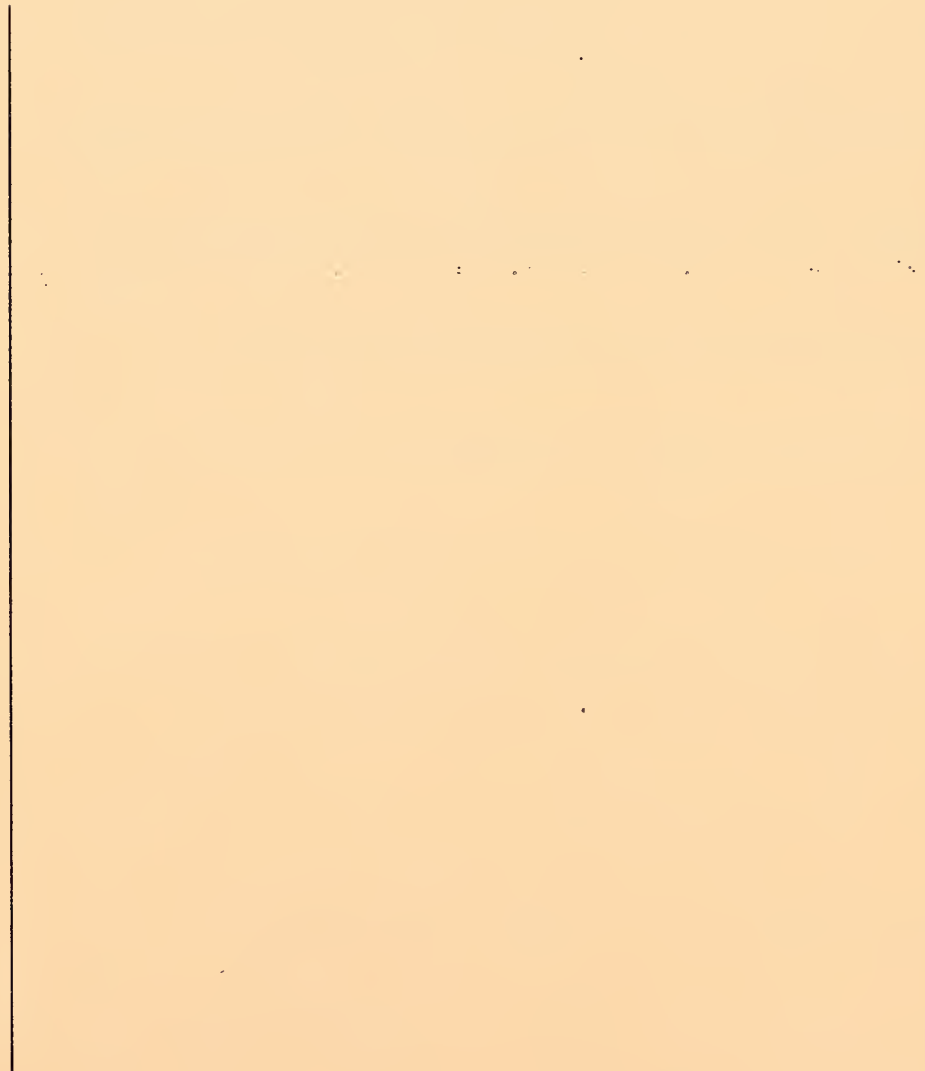
Based on the significant erosion that is occurring and the status of the sales effort, it is difficult to see how GECS will be able to achieve its 1989 revenue objective of \$119.5 million.





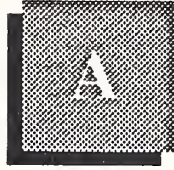


## Appendix: Copy of the Questionnaire Used as a Guideline for Discussion in the Regional Interviews









## Appendix: Field Trip Questionnaire General Electric Computer Service

1. Please give me an overview of your organization.  
How are you organized?  
What geographic territory do you cover?  
Who are your key customers?  
How many customers do you serve?  
How do you handle technical support?  
How do you handle off-hour calls?
2. What measurements of customer satisfaction do you have and how are you doing?
3. What measures of employee satisfaction do you have and how are you doing?
4. How are you being measured to determine your performance on the job?
5. How do you control the security of your parts inventory and your parts returns?
6. How well is the parts logistics system working?
7. What are the reasons for any recent losses to competition?
8. Who are your principal competitors and what are their strengths and weaknesses.
9. How do you set prices on special bid situations?
10. What is your plan for the remainder of 1989? What about 1990?
11. What are the key inhibitors of growth of revenue?

12. How do your prices compare with competition?
13. How is the centralized customer support operation working?
14. Which products or industries represent the best potential for growth?
15. What is the status of your manpower vs. your workload?
16. What is the attrition record in your area of responsibility?
17. What backlog of calls do you normally start the day with per FSR?
18. What is the average number of calls per day per FSR?
19. What problems, if any, are associated with the van program?
20. How do you identify prospective customers and how do you market to them?











